

THE LONG LIFE OF WIKIPEDIA: AFFORDANCES AND TRUST

Costanza Sartoris

Venice School of Management
Ca' Foscari University

Sasha Piccione

Venice School of Management
Ca' Foscari University

Caterina Cruciani

Venice School of Management
Ca' Foscari University

Keywords: affordances, trust, self-organizing
bureaucracy, contributor taxonomy, contribution patterns

Introduction

“The true miracle of Wikipedia is that this open system of amateur user contributions and edits doesn't simply collapse into anarchy” (Anderson, 2006, p. 71)

Social media's architecture seems to play an important role in influencing the impact platforms have on political discourse polarization (Baliotti et al., 2021), or in nudging to inform behavior e.g. by signaling a reference source is missing (Lorenz-Spreen et al., 2020). Social media's architecture is strictly linked to the notion of affordances (Ronzhyn et al., 2023) since affordances “mediate between a technology's features and its outcomes” (Davis, 2020, p. 6).

With more than 150 million active users per month¹, Wikipedia is one of the most visited websites in the world², the world's largest encyclopedia³, and a unique example in the social media realm because of its purpose aiming at the creation of a social good⁴. After more than 20 years, Wikipedia keeps running and it is far from having collapsed into an anarchy of reckless editors thanks to the affordances the platform offers and the social dynamics they entail. Affordances are relational and conditional (Davis, 2020) and in Wikipedia, they are embodied by the wiki interface allowing everyone to add, edit, and discuss content and the set of norms and procedures developed through this continuous practice of adding and editing the content and transforming the platform itself. Media studies have already investigated Wikipedia's affordances to understand, for instance, how controversies are resolved (Weltevrede & Borra, 2016). Other scholars, instead, have highlighted how Wikipedia is a “self-organizing bureaucracy” (Rijshouwer et al., 2023) because of its procedural and juridical affordance stance.

¹ Self-declared data from the DSA EU act <https://digital-strategy.ec.europa.eu/en/policies/list-designated-vlops-and-slops>

² As per the article <https://www.semrush.com/trending-websites/global/all>

³ The Economist. (2021, January 9). Wikipedia is 20, and its reputation has never been higher. The Economist. <https://archive.ph/ZJkp6>

⁴ “Wikipedia arguably is one of the most visible examples of the use of social media to enlist volunteers to contribute to a social good” Morgan, J. T., Mason, R. M., & Nahon, K. (2012). Negotiating Cultural Values in Social Media: A Case Study from Wikipedia. *2012 45th Hawaii International Conference on System Sciences*, 3490–3499. <https://doi.org/10.1109/HICSS.2012.443> (p. 1)

Studies show how Wikipedia's technical affordances can highlight trust (Kuznetsov et al., 2022) or nudge toward a more careful consideration of the information provided (Lorenz-Spreen et al., 2020). The literature on trust has shown that propensity to trust, perceived and actual trustworthiness, and distrust are different concepts (Lyon et al., 2015) that require different tools to be studied. We believe that investigating how volunteers (i.e., contributors) with different motives to participate in the project use and perceive Wikipedia's affordances can shed light on how trust, as well as trustworthiness, are crucial determinants for the positive political result of this “self-organizing bureaucracy.”

Methods

This research utilizes data collected by Cruciani and colleagues (2023) through a survey launched on Wikipedia focussed on the relationship between personal preferences and other socio-demographical features with the perception and use of Wikipedia. In particular, the questionnaire addresses how participants use and perceive the affordances that constitute the core of the Wikipedia self-organizing bureaucracy, ranging from technical dimensions (e.g., contribution types and content, knowledge, and perception about the rules and procedures that govern Wikipedia) to social affordances regarding how Wikipedia is used outside the platform. Given the important role of trust and trustworthiness in social media participation, the questionnaire includes many items that allow disentangling the notion of trust across both the normative and the performative domains.

The data was collected between June and July 2023 via a banner published in 8 languages on the Wikipedia page. Survey completion was entirely voluntary and non-incentivized in any way. More than 200,000 people opened the questionnaire, 100,332 started to answer it, and 10,576 finished it. Considering the overall interest of this research in the role of trust within social media, we opted to work on a smaller sample to focus on self-identified contributors to Wikipedia that answered the question regarding *Generalized Trust* as presented in the World Value Survey⁵. In total 9,282 individuals answered this question.

⁵ Haerper, C., Inglehart, R., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano, J., Lagos, M., Norris, P., Ponarin, E., & Puranen, B. (2022). World Values Survey Wave 7 (2017-2022) Cross-National Data-Set (5.0.0). World Values Survey Association.

To explore the role of volunteer motives (Chacón et al., 2011), or the motivations behind contributors' actions, among the questions included in the survey we identified five key ones (Table 1). We used them to cluster participants in groups sharing similar motivations and explored if they differ in terms of propensities and user practices within Wikipedia both online and offline.

Results

Using user motives resulted in 5 different clusters (Figure 1) showing two highly-motivated clusters (4 and 5) both characterized by a strong sense of belonging to the community (values and institutional motives) with Cluster 4 being stronger on the career and enhancement domains. There are also two less motivated clusters (2 and 3) that differ in their engagement with the community: Cluster 2 includes individuals who do not believe in the existence of the Wikipedia community, nor feel part of it. Cluster 3 joins participants who at least recognize and agree with the Wikipedia philosophy. Cluster 1 collects individuals who show average levels in all motivations. Data collected also offers insights into the different dimensions of trust and trustworthiness: interestingly, generalized trust does not differ much across clusters, nor does the perceived reliability of Wikipedia at the professional or personal level. The clustering is particularly effective in distinguishing groups regarding their perceptions about different kinds of political activism: Cluster 4 always shows the strongest support for the possibility of specific action to have an impact on the political process (among which, starkly, the fact of being an active Wikipedia member). Clusters 3 and 1 always show the weakest support for these statements. Another relevant difference among clusters emerges in terms of perceptions about Wikipedia uses and rules. While Cluster 4 remains the most invested in the appreciation of a central organization, the hierarchical structure of Wikipedia, and its existence; Cluster 1 is the group that finds elections the most fair. Moreover, Cluster 1 is by far the most active in terms of edits, writing on the talk page, on the comments page, and voting within Wikipedia.

Discussion/Conclusions

Bringing the lens of volunteer motives into the analysis of a large survey of Wikipedia contributors has shown that we can use outside motivation to explain the variability of use and perceptions of Wikipedia's affordances across its contributors. While the clustering might still be refined, it is interesting that different motivations to devote time and effort to the ambitious goal of Wikipedia map into so different patterns. While Wikipedia has been defined a self-organizing bureaucracy characterised by a long and healthy life, exploring how different motivations coexist might help shed further light on this process. Since

technologies, by design, are never politically neutral or value-free (Davis, 2020), our study of Wikipedia's self-organizing bureaucracy in action, investigating the role of contributors' motives in volunteering, might shed light on their relationship to trust in the whole system, as we believe that it is trust in the system that has been crucial for Wikipedia's positive survival so far.

References

- Anderson, C. (2006). *The Long Tail: Why the Future of Business Is Selling Less of More*. Hachette UK.
- Baliotti, S., Getoor, L., Goldstein, D. G., & Watts, D. J. (2021). Reducing opinion polarization: Effects of exposure to similar people with differing political views. *Proceedings of the National Academy of Sciences*, *118*(52), e2112552118. <https://doi.org/10.1073/pnas.2112552118>
- Chacón, F., Pérez, T., Flores, J., & Vecina, M. L. (2011). Motives for Volunteering: Categorization of Volunteers' Motivations using Open-Ended Questions. *Psychology in Spain*, *15*(1), 48–56.
- Cruciani, C., Joubert, L., Jullien, N., Mell, L., Piccione, S., & Vermeirsche, J. (2023). *Surveying Wikipedians: A dataset of users and contributors' practices on Wikipedia in 8 languages*. 1–7. <https://doi.org/10.34847/nkl.4ecf4u8m>
- Davis, J. L. (2020). *How artifacts afford: The power and politics of everyday things*. The MIT Press.
- Kuznetsov, A., Novotny, M., Klein, J., Saez-Trumper, D., & Kittur, A. (2022). Templates and Trust-o-meters: Towards a widely deployable indicator of trust in Wikipedia. *CHI Conference on Human Factors in Computing Systems*, 1–17. <https://doi.org/10.1145/3491102.3517523>
- Lorenz-Spreen, P., Lewandowsky, S., Sunstein, C. R., & Hertwig, R. (2020). How behavioural sciences can promote truth, autonomy and democratic discourse online. *Nature Human Behaviour*, *4*(11), 1102–1109. <https://doi.org/10.1038/s41562-020-0889-7>
- Lyon, F., Møllering, G., & Saunders, M. N. K. (2015). *Handbook of Research Methods on Trust: Second Edition*. Edward Elgar Publishing.
- Rijshouwer, E., Uitermark, J., & De Koster, W. (2023). Wikipedia: A self-organizing bureaucracy. *Information, Communication & Society*, *26*(7), 1285–1302. <https://doi.org/10.1080/1369118X.2021.1994633>
- Ronzhy, A., Cardenal, A. S., & Batlle Rubio, A. (2023). Defining affordances in social media research: A literature review. *New Media & Society*, *25*(11), 3165–3188. <https://doi.org/10.1177/14614448221135187>
- Weltevrede, E., & Borra, E. (2016). Platform affordances and data practices: The value of dispute on Wikipedia. *Big Data & Society*, *3*(1), 205395171665341. <https://doi.org/10.1177/2053951716653418>

<https://doi.org/10.14281/18241.20>

<p>The five most relevant volunteering motives in contributing to Wikipedia (Chacón et al., 2011, p. 50-52)</p>	<p>Variables (Cruciani et al., 2023)</p>
<p>Institutional motives: linked to organizational commitment motives, people feel committed to the institution, identifying with its philosophy and politics</p>	<p>wiki_philosophy: Do you agree with these statements about Wikipedia? [You adhere to the overall philosophy of the project] wiki_incommunity: [One can speak of a "Wikipedia community"] wiki_community: [You are part of the "Wikipedia community"] participation_stoprules: If you think of your participation in Wikipedia, would you say that... [If you stopped, it would be because of Wikipedia's rules]</p>
<p>Enhancement motives: a variety of motives linked to people's self-esteem, making them feel important or necessary, making them feel better about themselves, or being a way of making new friends. Close to the Volunteer Functions Inventory (VFI) scale (Clary et al., 1998)</p>	<p>wikifor_settle_watch: Have you ever used Wikipedia for the activities just mentioned? [Settle a disagreement in a conversation] wikifor_readcuriosity: [Watch a piece of information out of curiosity while watching or reading something else (documentary, news article, advertising, etc.)] participation_known: If you think of your participation in Wikipedia, would you say that... [It allows you to make yourself known] participation_knowledgeavailable: [It allows you to make your knowledge available] participation_fun: [You enjoy it, you find it fun]</p>
<p>Value motives: motives linked to an altruistic or other-centered interest that translates into a desire to help others</p>	<p>participation_stopbetray: [If you stopped, you would feel like betraying the contributors] participation_idea: [You like the idea of participating in the construction of a general encyclopedia, for everyone] wiki_philosophy: (as above) wiki_incommunity: (as above) wiki_community: (as above)</p>
<p>Career motives: motives centered on improving one's professional skills and/or improving one's chances of finding work</p>	<p>wikifor_settle_check: Have you ever used Wikipedia for the activities just mentioned? [Check something for a school assignment or a work document] participation_known: If you think of your participation in Wikipedia, would you say that... [It allows you to make yourself known] participation_knowledgeavailable: (as above) participation_job: If you think of your participation in Wikipedia, would you say that... [It's part of your job]</p>
<p>Knowledge motives: motives linked to learning about and understanding the world, developing new perspectives and interpretations, and acquiring and strengthening skills</p>	<p>(excluded in cluster analysis as baseline in Wikipedia's mission)</p>

Table 1 - The clusters based on the variables in the questionnaire that represent the motives to volunteer (Chacón et al., 2011) that were identifiable in the database by Cruciani and colleagues (2023).